

Clinical Trial Protocol

Iranian Registry of Clinical Trials

18 Sep 2026

Effect of Ketamine as Adjuvant in Ultrasound Guided Supraclavicular Brachial Plexus Block

Protocol summary

Summary

Objectives: We conducted this study to assess whether coadministration of ketamine would enhance or prolong local analgesic effect of lidocaine in supraclavicular brachial plexus block for patients undergoing elective upper extremity surgery. Patients with age between 15 and 60 years ; American Society of Anesthesiologists (ASA) classes I - II included and patient with preexisting neuropathy ; hepatic or renal impairment ; allergy to drugs used in this study ; infection at the injection site ; prior surgery in the supraclavicular, infraclavicular or axillary regions ; alcohol or drug abuse ; ; refusal of the patient excluded. Methods: Sixty adult patients undergoing elective surgery of the elbow, forearm, wrist, or hand were randomly allocated in two groups of thirty patients each. Group 1 (ketamine group) received 3 mg/kg lidocaine plus 2 mg/kg ketamine, Group 2 (control group) received 3 mg/kg lidocaine and saline. This randomized, double blinded clinical trial was conducted between November 2012 and November 2013 in the two teaching hospitals (Ayatollah Kashani and Alzahara Hospital) of Isfahan University of Medical Sciences. Outcome measures included onset times and duration of sensory and motor block, pain and satisfaction scores, time to first request for analgesia, total dose of postoperative opioid, and adverse events.

General information

Acronym

IRCT registration information

IRCT registration number: **IRCT2013091414661N1**

Registration date: **2014-02-20, 1392/12/01**

Registration timing: **retrospective**

Last update:

Update count: **0**

Registration date

2014-02-20, 1392/12/01

Registrant information

Name

Mohammadreza Lashgarinia

Name of organization / entity

Isfahan University of Medical Science

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Iran (Islamic Republic of)

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Recruitment status

Recruitment complete

Funding source

Isfahan University of Medical Science

Expected recruitment start date

2012-11-01, 1391/08/11

Expected recruitment end date

2013-11-01, 1392/08/10

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Effect of Ketamine as Adjuvant in Ultrasound Guided Supraclavicular Brachial Plexus Block

Public title

Ketamine and post operative pain

Purpose

Health service research

Inclusion/Exclusion criteria

Inclusion criteria : Patients with age between 15 and 60 years ; American Society of Anesthesiologists (ASA) classes I - II ; and body mass index (BMI) between 20 and

35 kg/m2. Exclusion criteria : preexisting neuropathy, coagulopathy ; hepatic or renal impairment ; severe pulmonary disease ; allergy to drugs used in this study ; infection at the injection site ; pregnancy or lactation ; prior surgery in the supraclavicular, infraclavicular or axillary regions ; alcohol or drug abuse ; duration of operation more than 120 min or less than 30 min ; refusal of the patient.

Age

From **15 years** old to **60 years** old

Gender

Both

Phase

3

Groups that have been masked

No information

Sample size

Target sample size: **60**

Randomization (investigator's opinion)

Randomized

Randomization description

Blinding (investigator's opinion)

Double blinded

Blinding description

Placebo

Used

Assignment

Parallel

Other design features

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Isfahan University of Medical Science

Street address

Isfahan.Iran

City

Isfahan

Postal code

Approval date

2012-07-10, 1391/04/20

Ethics committee reference number

291195

Health conditions studied

1

Description of health condition studied

regional anesthesia

ICD-10 code

Y48.3

ICD-10 code description

Local anaesthetics

Primary outcomes

1

Description

Post operative pain

Timepoint

the first 24hours post operatively

Method of measurement

VAS

Secondary outcomes

1

Description

onset times and duration of sensory and motor block

Timepoint

intra operative

Method of measurement

by chornometer

Intervention groups

1

Description

Group 1(ketamine group) received 3 mg/kg lidocaine and 2 mg/kg ketamine.

Category

Treatment - Other

2

Description

Group 2 (control group) received 3 mg/kg lidocaine and 0.9% sodium chloride in the same volume of ketamine 2% if was used.

Category

Treatment - Drugs

Recruitment centers

1

Recruitment center

Name of recruitment center

Alzahra and Kashani hospitals

Full name of responsible person

Dr.Azim Honarmand

Street address

Isfahan University of Medical Science

City

Isfahan

Sponsors / Funding sources

1

Sponsor

Name of organization / entity

Isfahan University of Medical Science
Full name of responsible person
 Dr.Peyman Adibi
Street address
 Isfahan University of Medical Science,VCR office
City
 Isfahan
Grant name
Grant code / Reference number
Is the source of funding the same sponsor organization/entity?
 Yes
Title of funding source
 Isfahan University of Medical Science
Proportion provided by this source
 100
Public or private sector
 empty
Domestic or foreign origin
 empty
Category of foreign source of funding
 empty
Country of origin
Type of organization providing the funding
 empty

Person responsible for general inquiries

Contact
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Sharing plan

Deidentified Individual Participant Data Set (IPD)
 empty
Study Protocol
 empty
Statistical Analysis Plan
 empty
Informed Consent Form
 empty
Clinical Study Report
 empty
Analytic Code
 empty
Data Dictionary
 empty